

ART. XII.—*Note from the Biological Laboratory of the Melbourne University :—On a Crayfish with abnormally developed Appendages.*

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In the five posterior thoracic limbs, or ambulatory appendages, of the common fresh-water Crayfish, the exopodite has, as a rule, completely disappeared, and the limb is formed of protopodite together with very strongly developed endopodite.

Professor Huxley, in his well-known works on the Crayfish,* referring more particularly to the European *Astacus*, observes, "I have not been able to discover, at any period of development, an outer division or exopodite in any of the five posterior thoracic limbs. And this is a very remarkable circumstance, inasmuch as such an exopodite exists in the closely allied lobster in the larval state; and, in many of the shrimp and prawn-like allies of the Crayfish, a complete or rudimentary exopodite is found in those limbs, even in the adult condition."

The common Australian Crayfish (*Astacopsis bicarinatus*) agrees very closely with the European form as regards the thoracic appendages. A few weeks ago, however, when we were dissecting this Crayfish, obtained in quantities from the University pond, one of the students called my attention to a peculiarity in the specimen with which he had been provided.

On examining this specimen I found that small exopodites were present on three of the ambulatory appendages, *viz.*, on the great chela and the succeeding appendage on the right side, and on the great chela alone on the left side. In size, shape, and position these abnormally developed exopodites closely resemble the normal exopodites of the third maxillipede. The specimen is a female, of moderate size.

The presence of these abnormal exopodites, which, so far as I am aware, have not hitherto been observed in any true Crayfish,

* International Scientific Series.

affords additional proof of the generally accepted view as to the derivation of the ambulatory appendages from the primitive biramose type. Their occurrence in an isolated specimen out of the many hundreds which have been examined by various workers is, doubtless, to be explained as an instance of reversion to an ancestral condition. An analogous case is afforded by the "antenniform ophthalmite" of *Palinurus penicillatus* described by Professor Milne-Edwards, and subsequently figured by Professor Howes in the Proceedings of the Zoological Society of London (17th May, 1887).

My thanks are due to Mr. A. W. Morton for calling my attention to the specimen described above, which is preserved in the Museum of the Biological School.